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REMARKS

This paper is responsive to any paper(s) indicated above, and is responsive in any other manner indicated below.

PENDING CLAIMS

Claims 10-20 were pending, under consideration and subjected to examination in the Office Action. Appropriate claims have been amended, canceled and/or added (without prejudice or disclaimer) in order to adjust a clarity and/or focus of Applicant's claimed invention. That is, such changes are unrelated to any prior art or scope adjustment and are simply refocused claims in which Applicant is presently interested. At entry of this paper, Claims 10-22 will be pending for further consideration and examination in the application.

REJECTION UNDER '112, 2ND PAR. OBIATED VIA CLAIM AMENDMENT

Claims 10 and 12 have been rejected under 35 USC '112, second paragraph, as being indefinite for the concerns listed within the sections numbered "3-5" on page 2 of the Detailed Action. Such claims have been carefully reviewed and carefully amended where appropriate in order to address the Office Action listed concerns. As the foregoing is believed to have addressed all '112 second paragraph concerns, reconsideration and withdrawal of the '112 second paragraph rejection are respectfully requested.

REJECTION UNDER 35 USC '102

The 35 USC '102 rejection of claims 10-20 as being anticipated by Moriya et al. (U.S. Patent 5,867,475) is respectfully traversed. However, such rejections have been rendered obsolete by the present clarifying amendments to Applicant's claims, and accordingly, traversal

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arguments are not appropriate at this time. However, Applicant respectfully submits the following to preclude renewal of any such rejections against Applicant's clarified claims.

All descriptions of Applicant's disclosed and claimed invention, and all descriptions and rebuttal arguments regarding the applied prior art, as previously submitted by Applicant in any form, are repeated and incorporated hereat by reference. Further, all Office Action statements regarding the prior art rejections are respectfully traversed. As additional arguments, Applicant respectfully submits the following.

In order to properly support a '102 anticipatory-type rejection, any applied art reference must disclose each and every limitation of any rejected claim. The applied art does not adequately support a '102 anticipatory-type rejection because, at minimum, such applied art does not disclose (or suggest) the following discussed limitations of Applicant's claims.

Applicant's disclosed and claimed invention is directed to the objective of avoiding recording medium deterioration caused by repeatedly writing the same data on the same position of the recording medium. That is, in practice, typically the same data is often rewritten onto the same position of a recording medium. For example, if a file is slightly modified many different times over time, and repeatedly rewritten back onto the disk. Applicant's found that when the same data is rewritten many times into the physically same place (e.g., sector) of an optical disk medium, the medium may degrade in quality in that the repeatedly rewritten data may become somewhat permanently etched. Then when new data is rewritten onto that same place, the former data tends to persist at that same place as noise.

Applicant's disclosed and claimed invention avoids the above degrading persistence problem, by randomly changing subject data each time it is to be rewritten onto the recording medium. Applicant does the same by using random number generators, to effectively change the subject data differently each time for rewriting. In terms of claim language, independent

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claim 10, for example, recites "wherein the seed data is data which is produced by using a different value for every time of rewriting data."

Turning now to rebuttal of the applied reference, Moriya et al. fails to disclose or suggest Applicant's invention, in that, at minimum, Moriya et al. does not use differing seed data for each rewrite. More particularly, Moriya et al. utilizes some type of standardized seed data, i.e., correlated to something. For example, the seed data may be correlated to a track number. Because the seed data is so correlated, every rewriting of a subject data onto a same place, will use the same standardized (i.e., correlated) seed data, and thus the same data will be written onto the same place. Such would result in the very problem and degradation that Applicant is trying to avoid. In short, Moriya et al. does not disclose or suggest any type of arrangement meeting Applicant's feature/limitations of: "wherein the seed data is data which is produced by using a different value for every time of rewriting data."

In addition to the foregoing, the following additional remarks from Applicant's foreign representative are also submitted in support of traversal of the rejection and patentability of Applicant's claims.

Regarding the rejection, Office Action comments have stated that Moriya et al (US patent 5,867,475) (hereinafter Moriya) teaches "determining at least one bit randomized data by operating at least one bit data added seed data to the data to the data and multiple bit randomized data" (column 10, lines 13-33 and lines 33-44) in a data-randomizing method. In rebuttal, it is respectfully submitted that in Moriya, the seed is used only for generating randomized data A, and is not used for generating randomized data B, which is randomized data finally obtained as shown in reference figure 1 attached herewith.

In Moriya, the purpose of scrambling is for removing the effect of a servo signal from user data, and for having no correlation between a neighboring track's data. Therefore, seed

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is generated by correlating to a track number, for example, to avoid for neighboring track's data becoming together. As a result, in the case of writing the same data onto a same position with the Moriya arrangement, scrambled data remains the same.

On the other hand, the purpose of present invention is to avoid recording medium deterioration, by avoiding repeatedly writing the same data on the same position of the recording medium.

A difference between configuration of present invention and that of Moriya, is as follows. In Moriya, a scrambling is operated by taking EOR simply in 1-bit units using M-sequence data as generated based-on seed and frame data, respectively, as shown in (Fig. 20, column 10, lines 34-44). In contrast, in Applicant's invention, scrambling is operated by adding seed to the beginning of the original data, and by passing them through the circuit shown in figure 1 from the beginning in order. Further, the seed is used for generating randomized data as shown in reference figure 2 attached herewith.

The difference in configurations described above derives the following difference between the result of present invention and that of Moriya. In Moriya, descrambling can be operated by generating M-sequence from seed as the same step shown in the reference figure 2 attached herewith and by taking EOR in 1-bit units using them. Therefore, seed must be known to be able to operate descrambling. In Moriya, a seed is used as identified uniquely, for example, by a track number or sector number. The seed is always known in Moriya, so the configuration has no problem in Moriya's purpose.

On the other hand, in the configuration of the present invention, descrambling is operated by only inputting read-out data to the circuit shown in reference figure 2 (attached herewith), and there is no need to know the seed. As the purpose of the present invention is to avoid recording medium deterioration by writing the same data on the same position of the

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recording medium repeatedly, Applicant's seed must be changed in every writing and changing data after descrambling. Therefore, the method of descrambling which can be operated without knowing seed has a remarkable effect for Applicant's invention's purpose.

To summarize, Applicant's invention is devised in order to avoid recording medium deterioration, and it is difficult to derive present invention from Moriya which does not teach nor suggest avoiding the above-described deterioration.

As a result of all of the foregoing, it is respectfully submitted that the applied art would not support a '102 anticipatory-type rejection of Applicant's claims. Accordingly, reconsideration and withdrawal of such '102 rejection, and express written allowance of all of the '102 rejected claims, are respectfully requested.

EXTENSIVE PROSECUTION NOTED

Applicant and the undersigned respectfully note the extensive prosecution which has been conducted to date with the present application, and thus Applicant and the undersigned would gratefully appreciate any considerations or guidance from the Examiner to help move the present application quickly to allowance.

ENTRY AFTER FINAL REJECTION

For all of the foregoing reasons, Applicant submits that the present paper should be entered since it places the rejected claims in condition for allowance by complying with the Examiner's requirements and/or amending and/or arguing the claims to distinguish such claims from the applied prior art.

Alternatively, this response should be entered since it presents the rejected claims in better form for consideration on appeal.

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EXAMINER INVITED TO TELEPHONE

The Examiner is herein invited to telephone the undersigned attorneys at the local Washington, D.C. area telephone number of 703/312-6600 for discussing any Examiner's Amendments or other suggested actions for accelerating prosecution and moving the present application to allowance.

RESERVATION OF RIGHTS

It is respectfully submitted that any and all claim amendments and/or cancellations submitted within this paper and throughout prosecution of the present application are without prejudice or disclaimer. That is, any above statements, or any present amendment or cancellation of claims (all made without prejudice or disclaimer), should not be taken as an indication or admission that any objection/rejection was valid, or as a disclaimer of any scope or subject matter. Applicant respectfully reserves all rights to file subsequent related application(s) (including reissue applications) directed to any/all previously claimed limitations/features which have been subsequently amended or cancelled, or to any/all limitations/features not yet claimed, i.e., Applicant continues (indefinitely) to maintain no intention or desire to dedicate or surrender any limitations/features of subject matter of the present application to the public.

CONCLUSION

In view of the foregoing amendments and remarks, Applicant respectfully submits that the claims listed above as presently being under consideration in the application are now in condition for allowance. Accordingly, early allowance of such claims is respectfully requested.

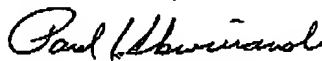
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To the extent necessary, Applicant petitions for an extension of time under 37 CFR
'1.136. Authorization is herein given to charge any shortage in the fees, including extension of
time fees and excess claim fees, to Deposit Account No. 01-2135 (Case No. 520.39904X00)
and please credit any excess fees to such deposit account.

Respectfully submitted,

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ATTACHMENTS:

Reference Figure 1/Reference Figure 2 drawing sheet